

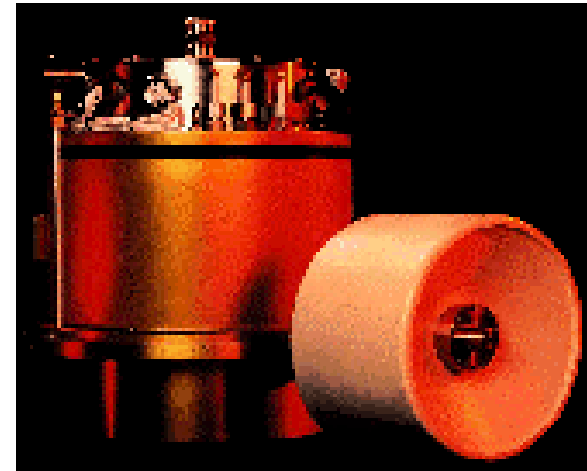
Flywheel Energy Storage System

U.S. Flywheel Systems & Boeing Company



TECHNOLOGY

A flywheel energy storage system is a mechanical battery that converts energy to mechanical motion, and then converts that motion back to energy when necessary.



Flywheel

COMMERCIAL APPLICATION

- ◆ Replace the chemical batteries used in space on satellites
- ◆ Potential use by utility companies and other electrical power systems

SOCIAL / ECONOMIC BENEFIT

- ◆ Process is very efficient, clean and safe
- ◆ More space can be devoted to science experiments and facilities on the International Space Station
- ◆ Creates a more cost effective space station
- ◆ Its lifetime can match the lifetime of the ISS

NASA APPLICATIONS

- ◆ The flywheel energy storage system was developed to replace chemical batteries on the International Space Station.
- ◆ The Flywheel Energy Storage System (FESS) will demonstrate the use of aerospace flywheel technology as energy storage for future use on ISS and other spacecraft

NASA Contact: Timothy Tyburski
Company Contact: (US Flywheel Systems) Henry V. Chase; (Boeing) Ishaque S. Mehdi
Date of Technology: 1999